

ESTABLISHED IN 1861 THE AMERICAN BEE JOURNAL OLDEST BEE PAPER IN AMERICA

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“Think Truly, and thy thought  
Shall the world's famine feed;  
Speak truly, and each word of thine  
Shall be a faithful seed;  
Live truly, and thy life shall be  
A great and noble creed.”

**New Orange-Blossom Honey.**—  
Mr. A. F. Brown, the migratory bee-specialist of Florida, has sent us a very generous sample of his pure orange-blossom extracted honey—some of the crop of 1894, so it's about the “newest thing out.”

We sampled a large number of various honeys at the World's Fair last year, but we don't remember tasting *anything* quite so fine as this orange-blossom honey. We have both clover and basswood honey here in our office, and of excellent quality, but we must say, to our taste, this orange-blossom honey is much preferred. It is very thick, is exceedingly smooth in taste, and exquisite in its orange-blossomy flavor.

Mr. Brown writes that he will have about 20,000 pounds (10 tons) of this orange-blossom honey, and knowing it to be a fine honey he would like to see it placed upon its own merits. He says that very few people (outside of those who produce it) have seen “pure orange-blossom honey,”

and therefore are prone to give it its just dues. Well, we are willing to say, so far as we are concerned, that we believe we could eat it three times a day, and not tire of it very soon.

**The Langstroth Fund**, we are sorry to say, has not recently been receiving the attention and subscriptions which we think it deserves. Please don't forget this opportunity to aid a little in a very worthy object. In acknowledging our last remittance, to Father Langstroth, his daughter writes thus:

DAYTON, O., March 26, 1894.

MR. GEO. W. YORK.—

Dear Sir:—My father thanks you very sincerely for your letter, and for all of your kindness to him. He also desires, through you, to thank his apiarian friends for all that they have done for him. His health is substantially the same that it has been all winter.

Respectfully,

ANNA L. COWAN.

**California Honey Adulteration**

—In *Gleanings* for March 15th we find the following editorial item:

So it appears from the railroad statistics that California produces over 5,000,000 pounds of honey a year. Rambler expresses an opinion that this amount is increased to 10,000,000 by the addition of glucose. There was a time when it was policy to keep still, because there was so little glucose-mixing done that it did more harm than good to mention it; but now the “hush-up-policy” would be suicidal to our industry. It would let the glucose fiend ruin prices on honey, and finally disgust consumers with anything bearing the name of honey, so that it would be impossible to dispose of even the pure unadulterated article at even half decent prices.

Bro. Root is exactly right—“the ‘hush-up policy’ would be suicidal to our indus-

try" of honest honey-production. Nothing could please the adulterators any better than to have everybody keep still, and just let them go on with their criminal work.

That's what burglars, murderers, and all sorts of thieves and sinners want also—they *want to be let alone!* But no honest, conscientious and liberty-loving people will consent to any such one-sided arrangement. No, sir! we'll try to "show up" their diabolical work, and if possible have it stopped, and themselves feel the strong arm of a just law!

We claim that as the bee-papers are read by the producers of pure honey, it is our duty to inform them of the iniquitous work carried on by those who would destroy our pursuit; and we do not propose to remain silent when we know that the adulteration of honey is constantly going on. We intend to denounce the villains until a stop is put to marketing for *pure honey* that which the sellers *know* is adulterated.

We believe that in the above determination every honest honey-producer will heartily agree, and urge us to "spare not, but cut to the core!"

**Mrs. J. N. Heater**, of Columbus, Nebr., has been spending two months on the Pacific Coast, we learn in a letter from her, dated on March 22nd. Here is what she says about that trip and her bees:

Mr. Heater and I have been on the Pacific Coast for the past two months, having returned on March 19th. We explored the Coast pretty thoroughly, from northern Washington to Mexico, both by land and sea, and had a most delightful time. I find my bees have wintered finely, and the prospects are all bright and encouraging for the coming season.

Yours truly,

MRS. J. N. HEATER.

How fortunate some folks are; and how much they must appreciate their ability and opportunity to see some of the delights of our own vast country. We are always glad when our friends have been thus blessed, even though we cannot enjoy similar pleasures.

Perhaps Mrs. Heater will favor the BEE JOURNAL readers with a description of her "Western wanderings," as doubtless she kept one eye open in the interest of bee-culture, and will be able to tell us all something about the things that impressed her most while "Coast-ing" along the Pacific.

### The Outlook in Bee-Culture.—

In the *American Bee-Keeper* for March, Bro. G. W. Demaree writes thus hopefully on the future of bee-keeping:

But what is the outlook for bee-culture in the future? There have been decades of good and poor honey years, ever since I began to observe these things, and I now expect them to turn up in their regular course. When the prosperous years are on, many persons enter the apicultural field, and when the poor years begin to be felt, they drop out and leave only those that are fitted for the business. Thus adversity is not without its beneficial use. The apicultural field, for this reason, is not likely to become too much crowded. To me the outlook is as bright as it ever was, and brighter.

The business is settling down in more permanent form, apicultural goods and supplies are becoming more uniform and staple in character, and less excited by doubtful and worthless invention. And "fitness of person" is taking the highest rank in the bee-business, in the place of honey-producing hives and fixtures. This is the most hopeful feature of our times pertaining to the future bee-business.

As to the seasons, we cannot govern them; as in the past, so they are likely to be in the future—they will be good and bad—but the effects will be no harder to bear by bee-keepers than by those engaged in other branches of agriculture.

### Bee-Books by the Carload.—

"A B C of Bee-Culture" is a grand good book. In *Gleanings* we just notice that Bro. Root is getting out the 62nd thousand of this well known work. That means a big pile of books. Let's see; we believe each copy weighs two pounds, so that would make just 62 tons in all—several carloads of just one bee-book! But that's just like Bro. Root—always doing big things.

### Canadian Honey, Etc.—

We have received the following letter from Bro. Holtermann, referring to our comments on page 361:

BRANTFORD, Ont., March 24, 1894.

FRIEND YORK:—I have just returned from Ottawa, and find the AMERICAN BEE JOURNAL before me, with a clipping from the *Empire*. Let me say I did not sympathize with the manner in which some one drew attention to the merits of Canadian honey. But I do claim that the average honey in Canada is superior to that of the United States. What I mean is this:

Owing to flora, climate, etc., the farther north we go, as a rule, the better is the honey (of course, do not go to the North Pole). Just this week I said at Ottawa, when seeking legislation on the adultera-

tion of honey, we do not claim our honey is better than that of Michigan, New York State, and the country with the same flora and climate as our own, but we claim it is better than Southern, etc.; in other words, better than the average.

We never object to the United States making the most of their situation—we even make a little allowance for blunders caused by self-interest, in other words, that country's interest. We must be allowed to make the most of our circumstances. We are justified in doing this under all circumstances, and particularly when we are trying to get our governments to do something for the industry.

I am not responsible for any statement not absolutely true. A letter of mine was printed in one case in which the printer made a mistake as to the number of awards—my original letter will show this. We are using every honest effort to develop the industry.

R. F. HOLTERMANN.

As nothing is to be gained by further discussion of this subject in the BEE JOURNAL, perhaps it will be just as well to let it rest here. Messrs. McKnight and Holtermann have now each had the "last word," so doubtless they will be satisfied that all fairness has been accorded them in the discussion, and everybody can now pursue the "even tenor" of their ways.

**Walled in by Bees.**—A Western newspaper reports a singular discovery made by some farmers who found a "bee-tree" and cut it down to get the honey. The honey was in a hollow midway of the trunk. The men split the trunk, and to their surprise took out not only some eighty pounds of honey, but a dead duck and eleven duck eggs. It appeared that a wood-duck had made a nest in the hollow, and that after she began to sit upon the eggs the bees stopped up the entrance with comb, so that she was unable to get out.

☞ A merchant has well said: "Common-sense is the least common product of human ingenuity. Brains make capital. Capital does not make brains; it can eat its head off if one lets it. Capital requires feed and exercise. The demand for men of ability is greater than the supply. The world does not stand still; changes come quicker now than they ever did, and they will come quicker and quicker. New ideas, new inventions, new methods of manufacture, of transportation, new ways to do almost everything, will be found as the world grows older. The men who anticipate them, and are ready for them, will find advantages and opportunities as great as any of their fathers or grandfathers had."—Selected.



### No. 69.—Miss Elsie Burden.

Our picture and short sketch this week will likely more particularly interest the younger members of the families who receive the BEE JOURNAL.



ELSIE BURDEN.

Although not yet 8 years of age, Elsie Burden, a little girl in the town of Bird-sall, Allegany Co., N. Y., has accomplished something as a maker of honey-boxes. As soon as she was large enough to handle a hammer she began nailing together the waste pieces in the shop of her father, who is a bee-keeper, so he finally set her to nailing honey-boxes. She succeeded so well at this that she

had nailed together more than 600 boxes before she was 5 years old. This was early in 1891, but for the next two years she did little in this line.

However, she began again in earnest on Jan. 10, 1893, and in 2 weeks had nailed together 1,000 boxes; by the 25th day of February she had made 3,000. On April 2, 1893, she was 7 years old, and on the 22nd of the same month she had made a total of 5,189 boxes since the previous Jan. 10th. On one occasion she nailed together 96 boxes in 90 minutes.

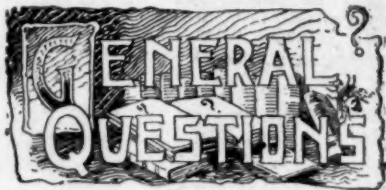
All of these boxes, it should be understood, were in 4 pieces, thus making 4 joints to be nailed, and 8 nails to the box; and Elsie drove the 8 nails in every one of the 5,189 boxes which she put together and finished!

This shows what a wonderful help even a child can be in doing the work connected with an apiary. Doubtless there are thousands of "little workers" besides the bees in the homes of bee-keepers throughout the land, and in the future they will become the ones who will shoulder the responsibilities incident to the life of a bee-keeper.

We ought not to forget to call attention to Miss Elsie's little dog, that seems to think itself of so much importance in that big chair. We understand that this dog is Elsie's constant playmate, and so of course it would have grieved greatly had it not been permitted to appear with her in the picture.

**"Foul Brood; Its Natural History and Rational Treatment,"** is the title of an interesting booklet by Dr. Wm. R. Howard, of Texas. It also contains a review of the work of others on the same subject. It is being issued at the office of the BEE JOURNAL, and will be ready to mail about April 10th. Price, postpaid, 25 cents; or clubbed with the BEE JOURNAL for one year—both together for \$1.15. Orders received now, and mailed as soon as issued.

**One-Cent Postage Stamps** we prefer whenever it is necessary to send stamps for fractions of a dollar. By remembering this, you will greatly oblige us.



ANSWERED BY

**DR. C. C. MILLER,**  
MARENGO, ILL.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 20 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—ED.

#### Reversing to Prevent Swarming.

Will reversing the frames, that is, turning them upside down, keep the bees from swarming? One of our most intelligent bee-keepers here has patented a hive that you just turn the hive itself upside down, and, presto, the hive is so full of bees they have to wait their turn to get in to unload a half section of honey, etc., each one at a lick.  
L. P.

Denver, Colo.

ANSWER.—A few years ago there was much said about reversing to prevent swarming, but one after another reported that it was not a success, and now I don't know that any one makes any claim for it. When the combs are reversed, sometimes queen-cells that were started are torn down, and sometimes not. So you can't count on it.

#### Sour Honey—Unsatisfactory Queens.

1. I have a quantity of golden-rod honey that has soured. Will it do for stimulative feeding, or is it good for anything?

2. I have also two Italian queens (mother and daughter) whose bees did not store enough honey last summer for winter stores. Would it be advisable to replace them with queens of another strain? If so, when?  
NOVICE.

Minnesota.

ANSWERS.—1. Exceeding care should be observed that bees do not get even a very small quantity of improper food in the fall, but it is remarkable how they will appropriate almost anything that has a little sweet in it, and take no harm therefrom when they can fly out. By all means use the soured honey for feeding. You ask if it's good for anything, evidently with the idea that if it is not good for feeding, it may be good for something else. It will make good vinegar. I suspect there is not as much vinegar made from honey as might be, but remember that the best honey



makes the best vinegar. I don't know, however, but your honey would make just as good vinegar as if you had started to make vinegar of it before it soured.

2. I wouldn't be too hasty in condemning them. There may have been some satisfactory reason why they did not do as well as others. If, however, on close watching, you find that with exactly the same chance in every way they don't keep up with others, then replace them. Perhaps you can best do it sometime during the honey harvest, at least you might put them on trial until then, and you will hardly have good queens to spare before.

#### Feeding to Stimulate Brood-Rearing.

Is it an advantage to feed in spring to stimulate brood-rearing if there is plenty of honey in the hive? H. C. L.

Tacoma, Wash.

ANSWER.—There is some difference of opinion as to this question. If bees are short of stores, it is undoubtedly well to feed, not only a little, but an abundance. But if there is an abundant supply in the hive, I think most agree it is well enough to let them alone. Try part each way, and see if you can find any difference.

#### Getting Rid of Old Hives.

I have a few old patented hives with holes up through the top covering, for 6-pound boxes. In order to get rid of these hives, would it be as well to transfer the bees just before swarming, or let them swarm and then drive out the balance?

Bennington, Vt.

F. S. C.

ANSWER.—Either time will do. If you were sure they would swarm in good season it might be well enough to let them swarm. Put the swarm on the old stand, setting the old hive to one side facing another way, or else behind. In 21 days drive out all from the old hive and unite with the swarm.

If you don't want to wait for them to swarm, drive out most of the bees, being sure the queen is with them, but leave enough bees in the old hive to take care of the brood. Set the "drive" on the old stand, and the old hive to one side or behind, as in the other case, and in 21 days drive out the remainder. You see if you drive out all the bees at the first, you'll lose all the brood.

#### Honey-Board or Queen-Excluder.

Last season I secured 550 pounds of section honey, using section-cases with slatted bottoms without honey-boards, and with one exception I had no trouble with queens laying in section-cases. This season I intend to use in all my new cases the T tin section supports. Will it be necessary to use a honey-board, either plain or queen-excluding, between the brood-nest and section-case? If so, which one would be pref-

erable? I use the 8-frame Langstroth-Simplicity hive, with V-shaped top-bar, 1½ inches wide.

S. L.

Jarrett, Minn.

ANSWERS.—Before answering your question satisfactorily, I need to ask you a few questions. For you see it makes quite a difference whether you use separators, what sized sections, and what kind of top-bar.

I should say in general that you ought not to have much more trouble than last year, for unless the slats under the sections were quite thick, the sections would not be much farther from the brood-combs with T tins than with slats.

Still, I don't think the distance from the brood-combs is so important as some other things. If you have no separators, and sections as far from center to center as brood-combs, I should expect the queen to do a land-office business laying in the sections. But separators will hinder, and so will thicker sections.

Your top-bar is V-shaped, but it makes a difference whether the V is shallow or deep. But with separators I think you ought not to have much more trouble than last year.

#### Hive and Comb 8 Years Old.

What can I do with an old colony of bees, that have been in the hive about 8 years? Can I transfer them? Their comb is as black as coal.

J. T.

Logansport, Ind.

ANSWER.—If you want to get the bees out so as to melt up the old combs, wait until three weeks after they swarm, and then drum out the bees. But what do you want to get them out for? If the combs are only 8 years old, that's not so very ancient. I have combs 25 years old, and probable blacker than yours, and I wouldn't swap them for new white combs. Give bees their choice, and you'll find they prefer the old comb every time. Put new, white comb on one side of the brood-nest, and old, black comb on the other side, and see which the bees will use.

**A New Edition of "The Bee-Keepers' Guide; or Manual of the Apiary,"** by Prof. A. J. Cook, has just been issued by the publishers of the BEE JOURNAL. Sixteen thousand copies of this excellent and complete bee-work have already been sold, and it is to-day as standard as ever—Plain—Practical—Scientific. It contains over 450 pages, is beautifully printed, neatly and substantially bound in cloth, and is sent postpaid for \$1.25 per copy; or clubbed with the BEE JOURNAL for one year—both for \$1.65.

It will be noticed that the price hereafter will be \$1.25, instead of \$1.00 as heretofore.



CONDUCTED BY  
**MRS. JENNIE ATCHLEY,**  
 BEEVILLE, TEXAS.

### Mailing Queens—Australian Letter.

MRS. JENNIE ATCHLEY:—Your kind letter of Jan. 4th came to hand on Feb. 7th. I have received eight queens from America, but all were dead. You ask my opinion about water being necessary. I must confess that *I don't know*, but *think it may be*, and I am led somewhat to that way of thinking from the following:

In August, 1898, I had landed from Italy ten choice queens by steamer, and nine were alive. The cages in which the queens traveled were about 9x9x7 inches deep; on each side were *large zinc water-bottles* about 5x4x $\frac{1}{4}$  inch thick, with a nozzle about  $\frac{1}{4}$  inch in diameter at the bottom, over which was tied two pieces of calico, through which the bees obtained the moisture. The upper part was widened to hang on the top edge of the cage, and was nailed thereto. Between the water-bottles were three combs in frames, the top-bar hanging in openings sunk in the top of the cage, and the bottom-bar just fitting between the sides of the cage; the ends were kept  $\frac{1}{4}$  inch inside of the ends of the bottom-bar, thus giving  $\frac{1}{4}$  inch bee-space around the ends of the frames. The combs were fixed in these frames by tying tightly with string, and the lid came down tightly on top of the frames, and so kept them from sagging.

Under the combs was a wire-cloth screen, and under this a space of about 2 inches to the bottom of the box; the screen allowed dirt to fall through, ventilation was given through holes  $\frac{1}{4}$  inch in diameter in the four sides of the box, covered inside and out with wire-cloth; about 200 bees, perhaps more, accompanied each queen.

The cages were crated, and a wooden handle fixed at the top (so that they would not be turned over), fixed to stout fillets running up each side.

You will here note that the food consisted of comb honey only and water. Let me here remark that a few weeks after arrival all the honey was crystallized—I do not know if it were so on arrival. Now here is a problem: If I can have sent from Italy (Bologna, rather) ten queens, and have nine of them arrive in first-class condition, with plenty of bees alive also, and no other food but comb honey and water, and *these be 42 days from date of departure* to their arrival here, and come by steamer as freight, *why cannot we with the same food land them here through the mails in smaller cages in less than 35 days?* Do you see the point? Honey and water instead of candy.

The above was rather better results than most importers have had, but it has been done, and should be done again. Don't you think the above a strong point in favor of water?

Now as to candy: You Americans can prepare it as you like, but it does not suit our climate. Two queens I received this season were smothered, through the candy running, and others landed with candy in a nice condition. In a few days this would get very moist or very dry, according to the weather. I have found it one time "as dry as a bone," at others, the same candy, too soft. Most of the queens sent to me died within from 5 to 10 days from the time of leaving America, judging from the amount of candy consumed. Now I will tell you where I think there may be a difficulty in this queen traffic. We mail them, the parcels are bagged or crated and placed, I don't know where, on the steamer—may be right over the boiler—I have thought queens were baked, arriving so dry, but being so long dead may make them dry up considerably.

Water in cages may give bees a chance of cleaning themselves when they become daubed with honey, and it may also cause the candy to run too much.

This season opened up very well—plenty of flowers, but the elements were against me. I had crowded colonies all through the winter, the bees storing on every fine day. I never saw the *bush* (forests) so full of bloom as in the spring, but very little honey was stored until the middle of December. On Oct 27th I extracted 13 tins, each 60 pounds; on Jan. 2nd, 15 tins, and Feb. 10th, 17 tins—total, 45 tins (2,700 pounds) to date. If warm, dry weather, we may get more. This is from 40 colonies, spring count, and increased to 63 colo-

nies to date. This I must look upon as very poor. The first extracting included honey that was stored during winter.

I trust to hear from you again, and hope you are having a successful season.

W. S. PENDER.

W. Maitland, New So. Wales, Feb. 15.

### Feeding Up Bees for the Flow, Etc.

MRS. ATCHLEY:—1. Please tell me when, or at what time, to feed bees up for a honey-flow.

2. What do bees gather honey from mostly in this locality?

H. L. HARGRAVE.

Nelta, Tex., March 13.

1. Friend H., if your bees are weak in numbers, and you wish to feed to stimulate brood-rearing to get a hive full of bees, you had better begin about 45 days before your honey harvest begins, and feed enough to keep brood-rearing progressing until the harvest opens, which will take say a pint of syrup twice a week to each colony, if they are gathering no honey, and less, according to the amount they are getting outside. But if you wish to stimulate your bees to activity just at the beginning of a flow, and they are already strong, one good feed will likely start them out to the fields in great numbers, and where honey-flows are short, this sometimes means a large gain, starting the bees out the first day your harvest begins.

2. I do not know exactly what the bees do gather your surplus from. But as your county (Hopkins) is mostly a timbered county, I suppose red bud, raton, and yellow blooms horsemint are your principal honey-plants. But you can easily inform yourself on these points by close observation, and you ought to study your honey resources as well as your bees, to enable you to run your bees more profitably.

JENNIE ATCHLEY.

### Sundry Questions About Texas.

MRS. ATCHLEY:—I would like to ask a few questions which I wish you would answer in the BEE JOURNAL:

1. Is there any school lands in your part of Texas—that is, some place that has the same soil and climate that you have at Beeville, and also as near the Gulf as it is there, and in as good a place for the bee-business?

2. Is there any work there for a carpenter? If so, at what wages?

3. What is building lumber worth there?

4. What is the price of good horses, that will weigh 1,200 pounds each?

5. What is the average price of a colony of bees in a dovetailed hive, or any frame hive?

6. If I should come there next November, could I find work enough to pay expenses while there, and look around some? I am a good carpenter, as well as a bee-keeper.

A. E. M.

1. Friend M., I do not know of any school lands in this part of the State, but I suppose there are, as I think there is more or less school land in all the southwestern counties.

2. Yes, there is carpenter work going on here all the time. I believe \$2.50 per day is the average price.

3. Eighteen to \$20 per 1,000 feet.

4. Seventy-five to \$100, owing to age and qualities.

5. Four to \$5.00, owing to the kind of bees, and their condition.

6. I could not tell, as that would be "dealing in futures," and that I am opposed to. But more than likely you could get all the work you could do.

JENNIE ATCHLEY.



### Best Top-Bar and Spacing.

Query 917.—1. When running for comb's honey, what is the best width and thickness for top-bar, and the best space from center to center?

2. When running for extracted?—Ohio.

We follow Langstroth for both.—MRS. L. HARRISON.

We give our bees  $1\frac{1}{2}$  inches for each comb.—E. FRANCE.

1.  $1\frac{1}{2} \times \frac{3}{8}$ , and  $1\frac{1}{2}$  from center to center. 2. Same.—C. C. MILLER.

1. Top-bar  $1\frac{1}{2} \times \frac{3}{8}$ ; center to center  $1\frac{1}{2}$ . 2. Ditto.—J. H. LARRABEE.

1. I like  $\frac{3}{8}$  wide and  $\frac{3}{8}$  thick, and use a honey-board. 2. The same as for comb.—A. B. MASON.

The width and space (if there is such) that will induce the least bridging, is the best in all cases.—JAS. A. STONE.

The thickness and width of top-bars have influence only on the brace and burr combs, and not on the amount of harvest.—DADANT & SON.

1 and 2. Not less than  $1\frac{1}{2}$  inches wide, and at least  $\frac{3}{4}$  inch thick at the edge, spaced  $1\frac{1}{2}$  inches from center to center.—MRS. J. N. HEATER.

Whether for comb or extracted honey, I should use the wide, thick top-bars  $1\frac{1}{2} \times \frac{3}{4}$  inches. The distance from center to center  $1\frac{1}{2}$  inches.—C. H. DIBBERN.

I want top-bars  $1\frac{1}{2}$  inches broad with  $\frac{3}{4}$  inch space between them for any kind of honey, and I want them thick enough to prevent sagging.—EMERSON T. ABBOTT.

We use  $1\frac{1}{2}$  inches for both, but it is supposed that  $1\frac{1}{2}$  is better for comb honey, especially where large brood-chambers or deep frames are used.—P. H. ELWOOD.

1. If the object is to prevent burr and brace combs,  $1\frac{1}{2} \times \frac{3}{4}$  inches; but if the space is wanted for brood,  $\frac{3}{4} \times \frac{3}{4}$  or  $\frac{1}{2}$ ;  $1\frac{1}{2}$  from center to center. 2. Ditto.—R. L. TAYLOR.

1.  $\frac{3}{4}$  inch square would likely give as few brace-combs as any thickness, and  $1\frac{1}{2}$  inches from center to center is about right for spacing. 2. Same as for comb.—S. I. FREEBORN.

I use a top-bar 1 inch wide by  $\frac{3}{4}$  thick, and space  $1\frac{1}{2}$  inches from center to center, both for comb and extracted honey, and see no good reason for changing.—G. M. DOOLITTLE.

If there is any better frame for either comb or extracted, than the original "Langstroth," I have never discovered it. Keep the frames just a "finger-space" apart.—WILL M. BARNUM.

1. Opinions vary. My opinion is that top-bars should be  $\frac{3}{4}$  inch wide, and spaced just bee-space apart. 2. I see no reason for using a different width in working for extracted honey.—J. E. POND.

1. I used  $\frac{3}{4}$ -inch wide, and about  $\frac{3}{4}$  inch deep. I never used the *very* deep top-bars. I should have all alike. I do not know whether it pays to have the deep top-bars, advocated so often of late.—A. J. COOK.

1. A frame which I like very much, because it minimizes the nuisance of burr and brace combs, has the top-bar  $1\frac{1}{2}$  inches wide and  $13/16$  inch deep. They space about  $1\frac{1}{2}$  inches from cen-

ter to center, and  $\frac{1}{4}$  of an inch between the tops of the frames. 2. If brood-frames are meant, I don't see why they should be different from those used in the other.—EUGENE SECOR.

1. The top-bar should be one inch wide and  $\frac{3}{4}$  deep, spaced from center to center  $1\frac{1}{2}$  inches. 2. The extracting frames should be the same, except the depth of the top-bar may be anywhere from  $\frac{3}{4}$  inch to  $\frac{1}{2}$ .—G. L. TINKER.

1. I now use top-bars  $\frac{3}{4}$  wide and  $\frac{1}{2}$  inch thick, and space about  $1\frac{1}{2}$  from center to center. 2. I use framespaced the same for all purposes, unless I have a very weak colony, then I sometimes space closer.—MRS. JENNIE ATCHLEY.

1. Do you mean for the brood-combs? The width and thickness of the top-bar is a mooted subject. For extracting and for comb honey I would have the combs a little less than  $1\frac{1}{2}$  inches from center to center, say  $1\frac{1}{8}$ .—M. MAHIN.

I have used the  $\frac{3}{4} \times \frac{3}{4}$  top-bar for years, also several different kinds, and find no difference as far as amount of production. But for comb honey, I crowd the frames up, while for extracted I give them more room.—H. D. CUTTING.

Whether for comb or extracted, the brood-combs should be  $1\frac{1}{2}$  from center to center;  $\frac{3}{4}$  is the best width for loose frames, and one inch for fixed frames. I prefer a thin top-bar properly supported. Without bracing,  $\frac{3}{4}$  inch is about right.—J. A. GREEN.

1. The most perfect comb is always obtained when the space from septum to septum conforms most closely to Nature—about 1 7-16 inches. I use a top-bar  $\frac{3}{4}$  thick,  $\frac{3}{4}$  wide, close fitting ends of top-bar 1 7-16—with triangular comb-guide.—J. P. H. BROWN.

I don't know that the width or thickness of the top-bars of the frames has much to do with *results*. These matters have more to do with manipulation of frames and honey-cases than with the yield of honey. 1. For the brood-chamber I prefer  $1\frac{1}{2}$  from center to center of top-bars, and for the extractor,  $1\frac{1}{8}$ .—G. W. DEMAREE.

**Honey as Food and Medicine** is just the thing to help sell honey, as it shows the various ways in which honey may be used as a food and as a medicine. Try 100 copies, of it, and see what good "salesmen" they are. See the third page of this number of the BEE JOURNAL for description and prices.

**Great Premium on page 357!**





## Notes on the Los Angeles Convention.

*Written for the American Bee Journal*  
BY PROF. A. J. COOK.

What is more significant than the fact that the Los Angeles County Bee-Keepers' Association holds meetings every month? And has a very good attendance, if I may judge by the last meeting, when it was my good fortune to be present. Where else in the United States are monthly bee-keepers' meetings held? Even many annual State meetings languish for want of attendance.

### CALIFORNIA HONEY PROSPECTS.

At the last meeting of the above Association, the prospects for this season were discussed. As yet there have been only about 11 or 12 inches of rain. It was thought by most that 15 inches were required for a good crop. The fruit-men are getting anxious at the slight rain-fall to date, but of course there is yet plenty of time for the four or five inches yet required. Besides the abundant rain, absence of the north winds is also requisite. Some years the cold north winds seem to dry up the nectar, though in localities the winds rarely do harm; and, again, in some places the crop has been excellent with less than 10 inches of rain. Most of the bee-keepers present seemed cheerful.

### THE COST OF BEES.

The price of bees was also discussed. This ranges from \$1.00 per colony, where the bees are in old boxes, etc., to \$2.50 or \$3.00, where they are in good hives.

### POLLENIZATION OF FLOWERS.

The matter of pollenization was fully discussed. The methods to determine the importance of bees were explained, and several expressed a determination to examine the question by careful experiments. It was also resolved unani-

mously to memorialize the State Board of Regents, who have the experiment station in charge, to establish a branch station in apiculture in Southern California.

### MARKETING THE HONEY CROP.

The last question considered was that of marketing. It was stated that the Fruit Exchange, adopted by the citrus fruit growers of Southern California, was giving fairly good satisfaction, and the writer was appointed to find out just the method practiced by the fruit men, what its advantages are, and whether a similar association or union with the fruit men was desirable on the part of bee-men; and was asked to give a report at the earliest moment.  
Claremont, Calif.

## Selling Extracted Honey at Retail.

*Written for the American Bee Journal*

BY H. M. MELBEE.

(Which the "H. M." stands for Hunny Man.)

On page 209 Dr. Miller appears again with some more remarks on the sale of extracted honey at retail. The Doctor says:

1. If you will show me, Mr. Editor, how to sell extracted honey at 24 cents per pound, then I will stop producing comb honey.
2. If two dishes of honey were side by side upon the table, one extracted and the other comb, the honey itself being exactly the same, I'd take the extracted every time.
3. Mr. Melbee has made some mistake in his figures when he talks about a customer only getting only  $\frac{1}{4}$  of a pound of honey when he supposes he is getting a pound.
4. The question remains unanswered as to how so much more than usual prices can be obtained for extracted honey. Can you tell, Mr. Editor, why people who can buy such honey at groceries for 12 or 15 cents a pound, are willing to pay 24 cents for it?
5. Money is not my chief aim in life. I don't think I can make more money keeping bees than at some other occupation, but think I can have a more pleasant life of it.
6. I do not depend for the sale of my honey upon those who regularly read the bee-papers.
7. I sent a thousand pounds of comb honey to Chicago at the request of Messrs. Stone and Hambaugh, without

knowing whether they wanted to beg, buy or borrow it.

8. Would it be safe for me, Mr. Editor, to meet Mr. Melbee on a dark night?

#### REPLIES AND COMMENTS.

1. I don't know as I ought to reply to this statement for it seems to be directed to "Mr. Editor." Still, I will venture to say that, knowing Dr. Miller as well as I do, I don't believe he would stop producing comb honey, and the wholesaling of it, in order to take up the retailing of extracted honey, direct to consumers, at even 24 cents per pound. The Doctor is not the style of man to go into the honey-trade as indicated. He would very much rather sit in his office and prepare type-written articles for the bee-papers—especially during the winter months. At least I think so. Besides, I have no wish, whatever, to stop the production of comb honey by Dr. Miller nor any one else. The more comb honey there is produced, the less honey there is in the general crop; and, besides, the less competition there is in extracted honey.

2. I don't know as I would "every time." Once in a while I relish a change. But, in general, I prefer the extracted honey when well ripened and of good quality. And this is true with consumers generally. And this, in part, is why they are willing to pay a respectable price for it. And, also, why I ask them to do so. I simply practice what I preach, and why don't you, Doctor, do the same?

3. My statement is the rule, and not the exception. The gross weight of section honey does not, as a rule, average more than 14 ounces to the section, and 2 ounces is none too much to deduct for wood, wax and bee glue. When this topic is under consideration, between the soliciting agent and the consumer, it does not pay to consider the fractions of ounces. Such a course would not be appreciated, and would be time thrown away.

4. This seems also to be directed to "Mr. Editor." When I attended school it was generally the rule that no pupil should reply to questions not directed to him or her. But, in this case, perhaps the Doctor will excuse the writer if he replies by saying, that the main reason why he gets 24 cents per pound for extracted honey is simply because he asks it. Now that is a fair and common-sense answer to that question. And why? Because if you don't ask 24 cents you won't get it. At least that has

been my experience, and for nearly a lifetime. As I said, in answer to No. 2, I "practice what I preach." And when I ask 24 cents per pound I mean it. That is, I don't have two prices—an asking price and a selling price, nor one price for the rich and another for the poor, nor one price for white folks and another for black folks—but everybody is treated alike. I pay no attention to prices on honey at groceries, as the price should depend upon its quality, and consumers are governed, as a rule, as to quality, by the price that is put upon the article to be sold by the party who owns it. Now, Doctor, study this reply thoroughly, and I think you will see why it is some folks get better prices for what they have to sell than others do.

5. Nor is money my chief aim in life. That is one reason I do not work at the honey-trade all the time. A part of the time I prefer to work in the apiary, and to be at home with my family, even at one-half the pay. In many respects it is much more pleasant for me to work in the apiary than at anything else. There is much more to learn in the apiary than in the sale of honey. The selling of honey, from house to house, gets monotonous after a time, and, in some respects, is about as interesting as the life of the parrot. The foregoing explains somewhat why Melbee does not claim to be a millionaire.

6. Nor do I depend upon those who read the bee-papers, and especially their market reports, for the sale of my honey. Nine out of ten persons are as ignorant of honey prices at stores and in bee-papers as I am of the retail and wholesale prices on jewelry, and it is of course for my interest to keep them so.

7. Well, Doctor, I am somewhat acquainted with those two gentlemen. They are not only fond of nice honey, but let me tell you they are shrewd "chaps"—both of them. As they were stopping at the World's Fair they wanted, of course, to get some good honey to eat on pancakes and hot biscuits! Of course they didn't care so much for the appearance of the honey as they did for quality, and especially quantity! And knowing you lived in the country, they happened to think you would be unsuspecting, and this was why they sent you the order? But I had no idea, Doctor, that you would use up a whole column to explain that transaction.

8. I think you would be safe, Doctor, unless Melbee should wish you to give him an order for 24-cent honey and you

should refuse. In that event I cannot now say what the result might be. This question seems also to be directed to "Mr. Editor," but it is too late now for me to pass it by unnoticed.

Honeyville, Beeland.

## Poppies—California vs. Florida.

Written for the American Bee Journal

BY W. A. PRYAL.

As a correspondent on page 282 refers specifically to the bees working on the poppy of commerce, or that variety of the plant which we often see cultivated in gardens on account of its brilliant blossoms, I would say, as the editor has referred to me as an authority on the subject of bees and poppies, that the poppy I wrote about in the BEE JOURNAL last year was of an another kind altogether. In fact, the flower that we call the "California poppy" is not a poppy at all. I presume the reason it was given this appellation is because the flower much resembles that of the well-known poppy from which opium is obtained.

In the many years that we have had both the common single, white opium poppy, and the several varieties of single and double ornamental poppies on the place, I do not remember that the bees paid much attention to them. That they were not visited by bees here is no reason that bees do not find nectar in them elsewhere.

### FLORIDA AND CALIFORNIA.

On the same page referred to above, another correspondent, one in Florida, attempts to hoist the claims of that State above those of this, and winds up by asking Dr. Gallup to "take off his hat to the climate" of the Peninsular State, because he (the Florida correspondent) has condescended to doff his hat to apicultural California.

Now, I know that our Dr. Gallup will not hurrah for Florida and its climate, at the same time I will let him attend to Dr. Oren, the aforesaid Florida gentleman who is so anxious to see this great State humiliate itself by "taking off its hat" to the climate of any other section of the world, especially to that of Florida. I believe that comparisons are often odious, but as the M. D. amid the alligators has thrown down the gauntlet, I cannot refrain from having a little say about the so-called "flowery land," that may not be to his liking. I shall

not say much, because it is needless to say much to prove that many, if not all, the claims made in favor of the latter place are unjustified.

Those of us who were to the great Fair that so recently closed in Chicago, were able to judge of the immense difference there is in the two States named. In every respect Florida was "not in it" alongside of California at the Fair. The Golden State's exhibit of fruits and other products eclipsed those of every other portion of this continent.

As to fruit, those of Florida were not to be compared with the large and diversified display that this State made. I had heard so much of Florida that I made it my especial business, while at the Fair named, to see what Florida had to show. I was never so surprised in my life as I was when I found that that State had virtually nothing worth looking at. She went there in hopes of "doing up" this State, but our products so eclipsed Florida from the very start that the latter State gave up the race. I expected to see magnificent oranges from there, but they were worse than our third-class fruit. And they considered them the *best* in the world. They were measly things, at best, and a school-boy in this State would not take them as a gift; and what a school-boy will not take when it is offered him gratis, is certainly not of much account.

While at the Fair I had the good fortune of meeting a number of Florida editors, for they had been on there to attend the National Press Convention, and these gentlemen were quartered at the same hotel where I was stopping. We Californians had taken on a lot of our oranges and other products. We kept open house, and treated all the editors and their friends from all over the country to our fruits, and such other things that they felt like taking. I well remember how the gentlemen from Florida were surprised at the beauty and wonderful qualities of our oranges, raisins, figs and other fruits.

I heard them say that they could not equal what we had treated them to, though, naturally, to some extent, they stuck up for their oranges. Yet, they did not bring any of their vaunted oranges to show the Californians. Possibly they knew that the fruit would stand no comparison alongside of our superior qualities.

As to having Japanese plums ripen in the winter I have no objections. It is right; we have different kinds of fruit ripen in the winter, but we do not crow over it, as we prefer to show the fruit

that ripens at the time of the year that God intended it should. This is the fruit that has all the good qualities that commend it to the lover of delicious fruits. And yet, with the claims of Florida staring us in the face, California is the first State in the Union to get early fruit to the Eastern markets, withal Florida is "only 48 hours from Chicago or St. Louis." A "week's travel" does not prevent our fruit from getting to the Eastern markets ahead of that of the South, and I am glad to know that the people of this country, who can afford to pay the high rate of transportation the railroads exact, find that a week's travel does not prevent them from coming to California where they can enjoy the grandest climate in the world.

California is diversified in everything; her climate is of different qualities. All you have to do "is to pay your money and take your choice." You may live in some charming valley in a home where contentment reigns within, and where roses and other flowers are blooming in profusion without; and in half an hour you may be in a region where the perpetual snows abound. This is no fanciful sketch—it is true, and not of only one place, but of many in the State.

Where is Florida alongside of the Golden State when it comes to grand mountain scenery? Where is it with its wonderful mineral springs and geysers? Where are its beautiful sunsets? Yea, there are too many grand things that we have and you have not, Dr. Oren, that I cannot name them further, as I have already taken up too much space in these columns. Just leave your sandhills, death-dealing swamps, noxious insects, etc., and come out here to this God-blessed land, and live in luxurious happiness.

North Temescal, Calif.

### Bee-Notes by the Wayside.

*Written for the American Bee Journal*

BY E. S. LOVESY.

When I came over the Rockies on my trip to Chicago and the great Fair, last fall, I saw very much to admire. I found a highly civilized people. I saw a people that were far advanced in the arts, sciences, and manufactures, and when I walked through those great buildings and saw the great and grand achievements that had been accomplished for the use and pleasure of mankind, I asked myself the questions, Do our peo-

ple appreciate these things? If not, why not? For we saw there exhibited almost everything that the people could conceive of or desire for their use and benefit; yet there seemed to me to be one thing which appeared to be a lack of, for the benefit of our bee-keeping friends in some parts of the country, namely, a lack of honey-producing plants. As far as I could discover, the indications for honey in and through the Rocky Mountains were better than it was immediately east of them.

While I may be more or less in error, and at the same time there may be much better indications for honey than a person could observe in riding through the country on the cars, still I think, from the best observation that I could get as to the lack of honey-producing plants through portions of Nebraska and Kansas, I think it was sufficient so that I no longer wonder why it is that we ship honey to those places and other points east. I received an order from Nebraska for honey on Dec. 7, 1893.

I have received many letters from beekeepers in the East, complaining of the poor honey-flow, and asking for the indications here. One gentleman in Kansas wrote me that in his locality they had not had a good honey-flow in five years. Now supposing this to be correct, what is the cause of it? Cannot honey-producing plants be sown and grown, where Nature does not produce them in sufficient quantities?

Let us note some conditions: The most of our honey-producing plants here are propagated. There were very few here when the country was first settled, but now we have a moderate supply, and they are increasing every year. Through the loss of so many of our bees here last winter in some localities, less than one-third of the honey crop was gathered. When I started on my trip I traveled through lucerne fields—much of it was still in bloom. While in some seasons the bees gather much fine honey from this plant, yet much of it was cut for hay as soon as it comes into bloom; but when the lucerne is in full bloom, or when it is left for a seed crop, the bees have a much better chance.

I also saw what is called here the "Rocky Mountain honey-plant." It is also known as "stink-weed." This is a vigorous plant, growing from 2 to 6 feet; according to soil and location. Some seasons this plant produces an abundance of fine honey; but the best of all our wild honey-producing plants, is the sweet clover. The bees usually work on this plant from midsummer until the



frost comes, generally gathering large quantities, and of fine quality. While we have other honey-plants here, those that I have mentioned, with our tree and fruit bloom, are the principal ones.

Now I believe that facts will bear me out in the assertion that for quality and

compass. In California and Australia they may sometimes excel us in quantity, but not in quality.

Salt Lake City is what is called a garden city. The streets are 130 feet wide, with streams of water and rows of shade-trees on each side of the street.



*Rocky Mountain Bee-Plant.*

quantity combined, either in a honey or potato crops, there is no part of the United States that can lay Utah or Colorado in the shade. If there is any other place that can do it, we do not know where it is. This is no idle "blow," but it is one good reason why we ship some of our honey to all points of the

The sidewalks are 16 feet, making the streets 100 feet between the rows of trees. Many of the trees produce honey. Then, except in or near the business part of the city, each house occupies a lot about 5x10 rods, and nearly all of them have a fruit orchard, more or less. Thus we see that not only Salt

Lake City, but nearly every city or town in the Territory in the spring of the year are one vast blooming orchard. Thus you see we have fruit-bloom in the spring, and the field crop in the summer and fall.

A stranger passing through here in the summer would hardly conceive or believe that it would be possible for us to get as good a honey-flow as we sometimes get. Of course we are not always sure of a good crop. They tell us that nothing is sure in this world but death and taxes.

As I traveled through Utah in a southeasterly direction, as far as Green River, and in many parts of Colorado, I found conditions pretty much as I have described them. There is some good country in Colorado. They raise large crops of lucerne, honey, fruit, roots, grain, etc.; but some portions of central eastern Utah and western Colorado are barren.

As I went on I went up the Grand Canyon of the Grand River, up, up, through and between huge rocks until we were up in the clouds near Leadvill, at an elevation of 10,418 feet, but we were soon rolling down into a warm country again—down through the Royal Gorge, where the rocks tower above the river-bed 2,000 feet. This, I believe, is the head-waters of the Arkansas river. West of Leadville the waters run in the Colorado and the Gulf of California.

From the Royal Gorge we run across the valley past Canon City, Florence, and many coal-oil wells to Pueblo and Denver. Then as we rolled down over the foot-hills, we still saw some honey-plants.

But as we travel on across the Colorado line into Kansas or Nebraska, we run on a rolling, boundless prairie. As far as the eye can reach the indications for a good honey-flow did not look as promising, although I noticed considerable fruit trees in some places, but in the fields I failed to see much in the line of honey-producing plants. I saw a great quantity of corn and hay land, some of the latter, judging from appearances, looked as though it would not produce more than one ton of hay to the acre. I would like to see some of those people try some of our lucerne; if they could get a good start of lucerne, they would possibly get six tons to the acre, besides introducing a good honey-plant.

As we pass on through those States towards Missouri, I noticed that the soil and the crops looked much better. The corn, which seems to be the staple crop, looked taller and more vigorous. I no-

ticed much very fine country in Missouri, and some of it looked as though it ought to be a good country for bee-keepers. We passed nearly through the center of this great State, went through some very beautiful places on our way to St. Louis, where we found a magnificent city. There is a great deal doing in the manufacturing line there, and it seems to be established on a paying basis; and as far as I could learn, nearly all of the city is owned by her own people.

We now crossed the Missouri over to Illinois, and through the center of this great State—through Alton, Springfield, Bloomington, Joliet, and many other places. We much admired the vim and enterprise of the people of Illinois, in farming, mining, manufacturing, etc. As in Kansas, Nebraska and Missouri, I noticed that corn was one of the staple crops. Now I am positive that all those places could be greatly benefited by planting some of our lucerne.

After passing the Joliet penitentiary, and the extensive stone quarries, we arrived in that great and wonderful city of Chicago, having traveled over 2,000 miles. I looked around the city, and visited the old AMERICAN BEE JOURNAL office; attended the great bee-convention, met, chatted, and shook hands with more bee-keepers than I ever saw together at any other time or place. Then after taking in the Fair I again started back towards the Rockies. I returned over a somewhat different road, so as to see all I could through Illinois and Missouri. I saw more bees and better indications for a honey crop in those places than any other place east of the Rockies.

I went around through Lincoln, and central Nebraska. This seems to be a good country. I think it is about the best part of the State. The people seem to be industrious and enterprising.

I then passed on into Colorado, and again up into the clouds at Leadville, where we were caught in a big snow-storm, with the mercury nearly down to zero; but in about an hour we ran down to the west where the sun was shining, and it was warm and pleasant. We soon reached home, all well, having enjoyed a very pleasant and never-to-be-forgotten trip.

Now about this lucerne and a better honey-flow: I think conditions could be changed. We have shipped some seed to the Southern States this winter, and some of our Utah people have settled in Mexico and Arizona, where they have planted lucerne with great success. One of my old Utah friends, who now lives

in Arizona, has visited me since I came home, and he is very anxious to have me go there to live. He says they cut four crops of lucerne there in one year, while, as a rule, we only cut three. They fatten hogs on it by the thousand. He says that one acre of lucerne will produce more honey, and fatten more hogs than three acres of corn; and also that he can make more producing honey there at 5 cents per pound than he could here at 8 cents; still, I beat him, but he accuses me of being an expert at the business. They certainly have a beautiful country there; by using a system of irrigation such as we do here, they can grow tropical fruits and plants—in fact, almost any kind of a crop, in great abundance.

We have farmers here that came from different parts of the East, and some of them declare to me that they make as much off one acre here as they did from five back East. Be that as it may, by keeping the land in good condition, and by irrigation, we can raise large crops. While we raise large crops of grain, potatoes, fruit, roots, etc., the lucerne is said to be one of our very best paying crops, and a number of farmers have told me that they have cut nine and ten tons off one acre in one season, but as far as I can learn six is about the average.

Now if any of our bee-friends in any part of the country wish to try some lucerne, I have a little of this seed, and will send samples to any one asking for it; that is, as long as I have any left. Of course I can purchase any amount, if any of our bee-friends wish to try some of it. I will send it at first cost of seed. I believe this plant will grow in any part of the United States except perhaps the most northern points; a light, sandy loam, not too wet, but moderately dry, is the best. The Rocky Mountain bee-plant will grow any place where the soil is warm, dry and sandy. Either of these plants should be sown early in the spring, as also the sweet clover.

On page 748 of the BEE JOURNAL for 1893, I notice a question from P. S., of Kansas, about sweet clover, and some comments on this, one of the best of all honey-plants, and by many it is said to be the best of all honey-plants in Utah. I have heard hundreds of bee-keepers praise it, but I have never heard one condemn it.

As to sooty honey from sweet clover, I cannot find any one in Utah that ever heard of such a thing. Is it possible there may be two varieties of this plant?

When looking for a place to locate an apiary here, one of the first things the bee-keeper thinks of is, How much sweet clover is there in the vicinity? It will yield a good flow of honey often in a dry season, and as has been said, it is easy to kill it out by cutting it two years in succession, before it seeds. Of course bee-keepers are its greatest admirers. I do not think it is valuable as a honey-plant and a fodder plant at the same time, for to make good fodder it should be cut while it is young and tender, before it blooms; but for a good, all-around paying crop for bee-keepers and farmers alike, I believe lucerne is the best.

Yesterday I saw a Missouri farmer, but for the last three years a Utah sheep-raiser, and he says that one acre of lucerne is worth more than two acres of Missouri corn for any purpose; besides, the corn has to be planted and cultivated every year, while we have been cutting lucerne off of the same field for 20 and 25 years, and it is still growing.

One more note by the wayside: I noticed a dearth of timber in many parts of the country. Now the people here in the last 25 years have planted many poplar trees in rows through the country. While they beautify the general appearance of the country, they are also of great benefit as wind-breaks. I saw a farmer in this county that has a double row of those monarchs, running from the base of the mountain down through his farm; he says that before he had those trees, the winds used to come howling up the side of the valley near the mountains, and sometimes they carried away his lucerne and grain stacks; but now the trees protect him so that he has no more trouble from the wind; and in a dry climate they have a tendency to produce more rainfall, and thereby change the climate, if planted in sufficient quantities.

Again, it is cheaper to grow those trees for wood or timber than it is to buy it, if planted in bunches, say about four feet apart. They will make good timber in from 10 to 12 years; and for finishing lumber, or for making beehives, frames and sections, some of our bee-keepers say that there is none better.

355 6th E. St., Salt Lake City, Utah.

**A Binder** for holding a year's numbers of the BEE JOURNAL we mail for only 50 cents; or clubbed with the JOURNAL for \$1.40.

## Darwin's Alleged "Mistakes."

Written for the American Bee Journal

BY ALLEN PRINGLE.

I have read Rev. L. J. Templin's article with the caption, "Some Mistakes of Darwin," on page 215.

Mr. Templin seeks to show that the great naturalist, whose remains now repose in Westminster Abbey, and whose works have carried such dismay into the ranks of the profession to which Mr. Templin belongs, is "away off" in some of his facts, to say nothing of "his speculations in regard to Evolution," all of which, according to Mr. T., "goes to prove that it is better to use one's brains and eyes than to be blindly led by a great name."

It is not surprising that the clergy should attempt to discredit the man who has proved that humanity is a development from lower forms instead of being a special creation. This criticism of Darwin as to the "pairing for each birth," and the "cell-building," appears to me to be far-fetched. I do not suppose that Darwin was infallible. While there may be a few mistakes of small moment in the "vast array of facts in natural history" which he has given to the world, the two instances cited by Mr. Templin can hardly be accounted as such fairly.

When Darwin says, "All vertebrate animals, all insects, and some other large groups of animals, pair for each birth," he doubtless means by each birth the litter or group of offspring which result from one periodical fertilization—in the case of the queen-bee one fertilization. There may be intercourse once during a *pairing* or several times; and the eggs laid or offspring born as the result, though separated by days or weeks or (as in the case of the queen-bee) months, might be considered of the same litter and the same birth. I would direct Mr. Templin's and the readers' attention to the sentence in Darwin's work immediately preceding the one from which Mr. T. made the extract, in which the author says he "must here treat the subject with extreme brevity, though I have the materials prepared [he tells us] for an ample discussion."

Moreover, Darwin says there are exceptions: and as to parthenogenesis he distinctly makes exception of all such cases.

With reference to the other stricture concerning the "cell-making instinct of the hive-bee," it is well to remember that

Darwin is not dogmatic on the point. He says, "the work of construction seems to be," etc. He does not assert positively that it is so. Mr. Templin asserts that "every one who ever saw bees building comb knows that the above" [that is, Darwin's description of the proceeding] "is a purely fanciful sketch drawn from the imagination of the great naturalist." Here is one individual who does not know that. One not conversant with Darwin, would think, to read this, along with Mr. Templin's other intimation, that "Darwin took some of his alleged facts at second-hand," that Darwin had simply read a work or two on bees, and rested there for his knowledge on the subject. The investigator who kept a patch of ground undisturbed for 40 years to watch and study the habits of the insignificant *earth-worms* it contained, was not that sort of man. The reader of that chapter in the "Origin of Species," in which Darwin treats of the honey-bee, gets up from it astonished that the greatest of naturalists, with the whole of animated nature in his purview, could possibly have given so much time and personal investigation to the honey-bee as Darwin did. Darwin's personal investigations into the science and art of cell-building led him to differ from one whom he calls "the justly-celebrated elder Huber."

At another time I shall take occasion to quote Darwin on cell-building, etc.

As to Mr. Darwin's "speculations in regard to evolution," the attentive reader of Darwin knows that he was anything but a speculator, either philosophical or metaphysical. He was a man of facts—facts. These he marshalled in magnificent array. The inevitable deductions from his facts have been largely made by others.

Selby, Ont.

## Cellar Wintering of Bees—Adulteration.

Written for the American Bee Journal

BY C. THEILMANN.

Bees, so far in this vicinity, are in good condition. The prospect now (Feb. 27th) is that very few will be lost in wintering this year. I have heard of very few that show any signs of diarrhea. I have not noticed a single spot on mine, with the lowest (86° to 87° above) temperature for the past four weeks in my cellars. I do not recollect that the winter stores were so well



ripened as they were the past fall, and I have concluded that the more the winter stores are ripened, or evaporated, and nearly free of water, the better the bees will winter, if other conditions are alike.

The forepart of the present winter the temperature was at 40° above zero in my cellar, for nearly three months, and the bees seemed to be contented with it, and now it has been, and still is, at 36° above, and the bees have that contented murmur which all experienced bee-keepers are so much pleased to hear when they go into their cellars.

Heretofore I would not believe (from my former experience) that bees would, or could, keep very healthy in a cellar, for any length of time, with so low a temperature as 36° above zero; they would get wet and moldy, and would not winter well; but it proves that if the winter stores are perfectly ripe, and of good quality, the low temperature will not affect the health of the bees much, if any.

Notwithstanding, if the temperature had been up to 46° to 50° for two or three months in the forepart of winter, and then came down to 36°, disaster would follow with the best of stores; they would go to breeding, and would use up their vitality, and diarrhea is sure to follow.

I always noticed that when the temperature showed 45° and upward in my cellar in the forepart of winter, some of the colonies would start breeding, get restless, and disturb their neighbors; then comes diarrhea, and a bad smell, and disaster.

That pollen theory of Mr. Heddon's is all bosh, but not nearly so bad as his doctrine on adulteration of honey. It is the early winter breeding that causes diarrhea, and not pollen. I have never known a colony with the diarrhea in winter that had not been breeding, unless it was diseased by the stench and bad odor of the others.

We can stand the false pollen theory a good deal better (as it is only theory) than that shameful fraud of honey adulteration. To keep silent about it, and not make it public, will spoil more than will be gained, etc., is Mr. Heddon's doctrine. No, no, brother bee-keepers, that's all wrong; we will turn the handle and tell them to stop the swindle—we are not to be robbed of our honest labor by their dishonest practice. Show your mixtures, or we will *make* you show them. We are not afraid to show our product, straight from the bees. So far the adulterators have shown their vile

stuff ahead of our honey, and sold it for honey; but I hope every State will pass laws like the one published on page 232.

Go on brethren, and go on bee-keepers, and expose every one who will injure our industry by adulterating our product, without showing in big letters what it contains. If that is done, they will stop adulteration themselves, as no one will buy their mixtures.

To prove what I say above, I will give a little experience: I have a friend in North St. Paul who has bought considerable honey from me the past few years, and sold it to his friends and acquaintances. They were so well pleased with the honey that he worked up considerable trade. This winter, after he had sold all the extracted honey he had, he wanted more, as he had taken many orders. Of course I could not supply him, but wrote him that Messrs. Smith & Austrian had some nice California honey. He bought some there—five or six 60-pound cans—but when he took it to his customers they declared at once that this was not the same as he sold them heretofore, and that it was adulterated. The result was his trade stopped.

Theilmanton, Minn.

## Honey-Bee in the Economy of Nature.

*Read at the Wisconsin State Convention*

BY DR. J. W. VANCE.

The honey-bee is not appreciated as it deserves by those who are under the greatest obligations to it. The farmer and horticulturist have frequently gone to law with bee-keepers, claiming damages on account of alleged injury to fields and orchards by the visits of the bees gathering honey from the flowers. However, a change is coming on account of the investigations of naturalists, who have discovered that the honey-bee is included in Nature's plan for reproduction and evolution. People now see that the visits of the bee aid in cross-fertilization, and instead of antagonizing the bee-keeper he should be regarded and treated as a friend and coadjutor.

Owing to the peculiar organization and form of many flowers the intervention of the bee is essential to the transmission and interchange of pollen. Without pollen-fertilization, no seed can be produced. If we take in our hand a flower and observe its intricate organization we are impressed with awe at the evident handiwork of the Creator—a

wonderful mechanism constituted of stem, calyx, corolla, pistil and stamens. Down at the bottom of the corolla glistens, perhaps, the tiny drop of honey, the fragrance of which, as well as the brightness of the flower, attracts the honey-bee, and it goes merrily humming and alights upon the delicate margin of the cup-shaped corolla; and as it thrusts its little, fuzzy head into the cavity to draw up the sweet drop of nectar, the movement shakes the dust-like pollen upon its head and legs, and now doubly laden with honey and pollen it flies to the next flower, and, while gathering another drop, lets fall upon the pistil, eagerly awaiting to catch the scattered particles of pollen to fructify the ovules that lie hidden in the seed-pod of the flower.

Botanists tell us that although stamens and pistils occur in the same flower, it does not follow that such flowers are fertilized by their own stamens. On the contrary, it has been proved by careful investigations and experiments that Nature has provided that pistils should be fertilized by pollen from other plants. Does it not, therefore, seem a wise provision of Providence that the honey-bee should aid in conveying the fructifying medium—the pollen—from one plant to another, and thus by cross-fertilization produce better seed and more vigorous plants?

Experiments have demonstrated that a pistil fertilized by the pollen of another flower, or by that of another individual of its own kind, produces more and larger seeds, which grow into larger plants, than if it had been fertilized by the pollen of its own flower.

These and many other observations prove that the peculiar structures, colors, scents, honey-secretions, and other attractions of flowers, and the adaptations of the different organs to each other, and their adaptation to the needs of insects, are intended to prevent flowers from being fertilized by their own pollen, and to facilitate fertilization by pollen brought from other flowers. This is a most cogent justification of the honey-bee to exist. The Creator made the honey-bee for the flowers, and the flowers for the honey-bee. Therefore, the economy of Nature requires the honey-bee; and therefore the short-sighted farmer and fruit-raiser should awaken to a just appreciation of bee-keeping, and like their brethren in California, encourage the industry, as was reported by Prof. Cook in a recent issue of the AMERICAN BEE JOURNAL.

Madison, Wis.

## CONVENTION DIRECTORY.

### Time and place of meeting.

1894.  
Apr. 23.—Venango Co., at Franklin, Pa.  
C. S. Pizer, Sec., Franklin, Pa.

**IN** order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

### North American Bee-Keepers' Association

PRES.—Emerson T. Abbott....St. Joseph, Mo.  
VICE-PRES.—O. L. Hershiser....Buffalo, N. Y.  
SECRETARY—Frank Benton, Washington, D. C.  
TREASURER—George W. York....Chicago, Ill.

### National Bee-Keepers' Union.

PRESIDENT—Hon. R. L. Taylor..Lapeer, Mich.  
GEN'L MANAGER—T. G. Newman, Chicago, Ill.  
147 South Western Avenue.



**DO** not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

### Various Bee-Notes from Missouri.

To-day bees are carrying in pollen very fast. All are working very lively. The mercury stands at 70 degrees in the shade. The bees are gathering pollen from the elms.

This has been a very open winter, and the bees have had flights in every month. We had a hard spell of winter on Feb. 11th—snow fell 14 inches deep on a level, and drifted very badly from 4 to 6 feet in the east and west lanes, but it was all gone in two weeks.

The summer of 1893 was a very poor honey season in this locality; very little surplus honey was obtained by any bee-keepers here. A large majority of them did not get a pound of honey. I had 4 Italian colonies that stored 200 pounds of surplus honey in two weeks, from Spanish-needle and the yellow bloom. I had to feed my black bees until June 15th, to keep them alive; so I concluded if the Italians could make a living and store some honey over and above what they wanted for winter stores, that I would Italianize the whole outfit; so I sent for a yellow queen and

Italianized my black bees. I have 18 colonies, all alive up to date, and doing well. All of them have commenced brood-rearing.

I use the 8-frame dovetail hive. I have  $\frac{1}{8}$ -inch space above the frames, and  $\frac{1}{4}$  inch between the frames, which, I think, is correct, for I have had no burr or brace combs since I adopted this plan. I use the metal rabbets, and the improved Hoffman frame. I have had no swarms for two years. I prevent that by giving them room.

My surplus was all comb honey, and I sold it at 15 and 20 cents by the section. It averaged 15 ounces by the section; all that fell below 15 ounces I kept for my own use, and all that fell below 8 ounces I fed back to the bees.

I winter my bees on the summer stands, with a 2-inch strip under the bottom of the hive; no packing above of any kind. If I have any weak colonies that have to be fed in the winter, I put an empty super on top, and give them one pound of soft cream candy, laid across the tops of the frames. But the better plan is to prepare them in the fall with plenty of good honey to carry them through the winter without feeding, which should be 35 pounds of honey—say 40 pounds, bees and all, exclusive of the hive. This is sufficient to take them through the winter, and give them a good start in the spring. Keep them dry, and under shelter, and they are all right.

Louella, Mo., March 9. C. L. BOWEN.

### Bee-Keeping in Oregon.

I am situated in a small valley, with a creek running through the center, thickly studded with acres of willow, maple, crab-apple, cherry and hawthorn, besides a profusion of gooseberry, blackberry, raspberry and plenty of white clover, so you see we are not at a loss for honey-plants. Our winters are not very cold, the mercury scarcely ever reaching zero, but we have a great deal of rainy weather in winter. Bees winter all right on the summer stands without any protection.

My bees are having a good flight to-day, and got a little pollen for the first from the willow, which is our earliest honey-plant.

I am more than pleased with the BEE JOURNAL, and wish it every success.

LOUIS WILCOX.

Gaston, Oreg., March 16.

### Hives for Wintering—Bee-House.

I have 18 colonies of bees, and part of them are in the Lancaster hive, and part in the Cotner hive; they are the best hives for wintering bees, and are more safe from cold; then, they have double walls, and are  $4\frac{1}{2}$  inches between the walls. They can be filled with anything between, and that protects them and keeps them safe. I tried two of them about three years ago, and they proved all right. They are so handy to get the bees in. In the bottom of the hive there is a slide that is 8 inches wide, that can be removed, and the bees can go right in. I find them the handiest

of all for swarming time, for when the bees are all in you can slide the bottom right in its proper place.

I am thinking of building a bee-house that will hold 8 colonies of bees. It will be 7 feet long by 5 feet wide, 7 feet high, divided so as to make 8 departments inside. It will be all 2 feet in the clear, and a top space for the sections. It will be about 14 inches high by 2 feet square for the honey department, and doors in the center of it, and the walls are to be 4 inches thick, and filled in solid with sawdust all around the sides.

JAMES TOLEN.

Logansport, Ind.

### First Swarm on March 18th.

I am a bee-keeper on a small scale, having 25 colonies, some in Root's hive, and others in the box-hive. Bees are doing finely here now, as the spring flowers are blooming. I had my first swarm to-day—March 18th.

B. H. IVES.

Grifton, N. C.

### Favorable Prospects.

Bees are doing finely, having had a flight every day this month, and have gathered pollen every day since the 4th. My bees have gone through the winter all right. In looking over them to-day, I find young bees are filling up the hives very fast, with from three to five frames of brood to the colony capped. Everything looks favorable, if we only have a good honey-flow.

J. F. TRUESDELL.

Duncan's Falls, Ohio, March 23.

### An Experience with Bees.

Last spring I had 15 colonies of bees that came through the winter all right. I lost 5, that died with plenty of honey to live on—they froze, as last winter was a cold one in Central Ohio. Most of the black bees died, as they had not stores enough to keep them through the winter.

I have nothing but the pure golden Italians—they look like a piece of yellow beeswax, and as if the sunshine would melt them if they were to go out in it. From my experience the yellower the bees the more honey they store. Some of my neighbors have some of the old Italians, and they get very little honey. From 15 colonies of my golden Italians I got 1,100 pounds of comb honey, and 100 sections not finished, which I intend to feed to the bees to encourage them for next summer. I find it profitable to give the bees something to eat through the winter when they come out for a flight.

To keep bees in good condition all queens three years old should be superseded. I re-queen my bees every two years. It is a good deal of trouble to re-queen, but not so much trouble as to lose a crop of honey by a worthless lot of old queens. Young queens rear a good supply of workers in the hive, and not so many drones. You can often

tell a colony that has an old queen, by the quantity of drones in it. Old queens lay more drone-eggs than young queens—that is my experience.

I began bee-keeping with 2 colonies of black bees; they swarmed and did pretty much as they pleased until I had 10 colonies. I had by this time gotten very tired of black bees. I sent for the AMERICAN BEE JOURNAL and Doolittle's book on "Queen-Rearing." I thought when I read the book and BEE JOURNAL that I had the advantage of the black bees, and so I had. I sent for 10 golden Italian queens, introduced them on the Doolittle plan, and did not lose a queen. I have introduced hundreds since for neighbors, and never lost one. Those who introduce on the Doolittle plan will succeed, but when you go to shoving them in at the entrance of the hive, or wallowing them in honey and dropping them in, you will be very apt to lose the queens.

R. D. DAVIS.

Ridpath, Ohio.

#### Had to Take them from the Cellar.

It has been very warm since the first of March, and my bees became so uneasy that I was obliged to take them out of the cellar and put them on the summer stands on the 9th. They wintered the best of any bees that I ever wintered in the cellar. They have had a number of flights, and are very strong in bees, with plenty of honey.

S. B. SMITH.

Keenville, Minn., March 24.

#### Spending the Winter in Virginia.

We came down here to winter, and to avoid the cold, trying weather of the North. We find our health improved thereby. Quite a number of bees are kept near by, but mostly without profit. The honey is of a dark quality, and rank flavor. We can buy 10-frame hives, combs, and very good Italian bees all for \$1.00 each. Bees have been bringing in pollen for the past two weeks, and are now getting honey, as the peach, apricot, plum and cherry trees are now in bloom. I have purchased 2 colonies, and am going to put on empty supers, with starters on frames, and leave them for the summer without care, and see what they will do. I think they will not swarm, as they will be in a shady grove, and well ventilated during the hot weather.

CHESTER BELDING.

Claremont, Va., March 20.

#### Getting Bees Out of Supers, Etc.

I have a way of getting bees out of the T supers that beats anything I ever tried. I have never seen it in the bee-papers. I take a Simplicity hive body, and nail a tight bottom on it. The T super just fits on the tin rabbets, all but the end, where I lay a slat in to fill out, then bore a hole in end of the hive. stick the nozzle of the smoker in the hole, and you ought to see the bees

boil out. No robber-bees can get to the honey. A box just the size of the T super probably would be the best, it wants to be tight. The bees come out very quickly.

I have 31 colonies of bees, and they wintered splendidly, all coming through very strong, with no loss. I winter them in Root's chaff hive. I had 30 colonies, and last season I got 1,000 pounds of honey. The weather has been extremely nice all of March, so far. The bees have been carrying in pollen the last four or five days. I think the prospect is good for a big honey crop, if the weather is favorable. The white clover looks splendid.

NOAH THOMAS.

Horatio, Ohio, March 21.

#### Wintered Splendidly.

My bees have wintered splendidly on the summer stands. I looked them over on March 16th, and found young bees and sealed brood in all of the hives but one, and that one was a chaff hive. The rest are all in single-walled hives.

F. H. MOLBY.

Greenleaf, Kans., March 21.

#### Wintered Well—Moving Bees.

Bees wintered well. I put them out on March 17th, all the 138 colonies being alive. I moved 113 colonies the latter part of last October, 60 miles in farm wagons with springs. Every colony came through in good condition.

C. N. NOEHL.

Kasson, Minn., March 24.

#### Balmy Spring—Mountain Lions.

Spring is with us again, and everything and everybody seems to feel more hopeful and more cheerful; the birds are singing, and all Nature seems to feel the inspiring influence of balmy spring. We are organizing a number of fruit-growers' associations, with a view to more effectively put in force the Fruit Bill passed by the last Legislature.

The bees are doing well here now, and the indications seem to be good for a honey-flow.

I have seen several items in Eastern and Western papers lately, about mountain lions trotting around through the streets of Salt Lake City. This story is "too thin." A few dead ones have been brought in, but no live ones. The only fear that menaces us is the possibility that all our wild animals may yet be killed off.

E. S. LOVESY.

Salt Lake City, Utah, March 22.

#### This Man Wants the Proof.

I acknowledge that I may be a little excited after reading Mr. E. S. Pope's letter, on page 378, on the prevention of swarming. I don't believe a word of it, and yet it may be true; if so, "there are millions in it." Don't give such a thing away, for I will give \$100 if he can give me the plan



mentioned, and it works all right. Why, great Scott! only think, I am satisfied with 100 pounds per colony, because I thought that was about all there was in the business (that is, comb honey); but 250 and 400 pounds—how is that, Mr. Coverdale? I can't see you, but I imagine there is a broad smile on your face, and if these Hoosiers can produce honey at that rate, it beats natural gas or an oil-well. I don't believe a word of it. I deny everything, and insist upon more proof.

Dunlap, Iowa. E. J. CRONKLETON.

### Bees Were in Fine Condition.

One week ago I carried my bees out of the cellar, and it made me sweat in great shape. To-day I would want an overcoat and mittens to do the same work. The wind is blowing a regular gale, and it is freezing all the time. My bees were in fine condition, only one colony dead out of 42, and that one was queenless when put into the cellar. I shall carry them back in the cellar if it doesn't get warmer by the 27th.

BYRON CREVLIN.

Maquoketa, Iowa, March 25.

### Honey & Beeswax Market Quotations.

CHICAGO, ILL., Mar. 24.—The honey market will be very quiet for the balance of the season. We will not do much business until new honey comes in. We cannot quote prices but will obtain the best possible price on what little stock we will sell until early fall. Beeswax is very active at 25@26c. J. A. L.

ALBANY, N. Y., Mar. 23.—The honey market is very slow now. The demand is about over on comb. Some extracted wanted at 6c; if dark color, 5c. Beeswax, 26@27c. H. R. W.

CHICAGO, ILL., Mar. 15.—There has been a good deal of comb honey sold in the last few days, so that our stock of the best grades is now reduced. We obtain 14@15c. for choice white. Dark is hard to move at 10@12c. Extracted is very quiet, selling at from 4@7c. Beeswax is in good demand at 23@25c. R. A. B. & Co.

NEW YORK, N. Y., Jan. 24.—There is no change in our market. Trade remains dull with plenty of stock on hand of both comb and extracted honey. Beeswax is selling on arrival at 26@27c. H. B. & S.

CINCINNATI, O., Mar. 20.—Trade is dull. Prices of honey are nominal. We quote 4@8c. for extracted, and 12@15c. for choice white comb.

Beeswax is in fair demand, at 20@25c. for good to choice yellow. C. F. M. & S.

### Convention Notices.

PENNSYLVANIA.—The Venango County Beekeepers' Association will meet in the City Hall at Franklin, Pa., on Monday, April 23, 1894, at 1 o'clock p.m. All interested are requested to be present. C. S. PIZER, Sec. Franklin, Pa.

### List of Honey and Beeswax Dealers,

Most of whom Quote in this Journal.

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J. A. LAMON, 44 and 46 So. Water St.  
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F. I. SAGE & SON, 183 Reade Street.  
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#### Kansas City, Mo.

HAMBLIN & BEARSS, 514 Walnut Street.  
CLEMOMS-MASON COM. CO., 521 Walnut St.

#### Albany, N. Y.

H. R. WRIGHT, 326 & 328 Broadway.

#### Hamilton, Ills.

CHAS. DADANT & SON.

#### Cincinnati, Ohio.

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I send **NUCLEI** at \$1.00 per Frame—any size of frame if you will give dimensions—I use Langstroth frame; 10 or more Frames 90c. each. **Bees by the Pound** \$1.00; **Full Colonies** \$5.00 each. I have one straight merchandise rate on Bees by Express—lowest rate in U. S. **If you wish Queens for Business, send to me.**

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